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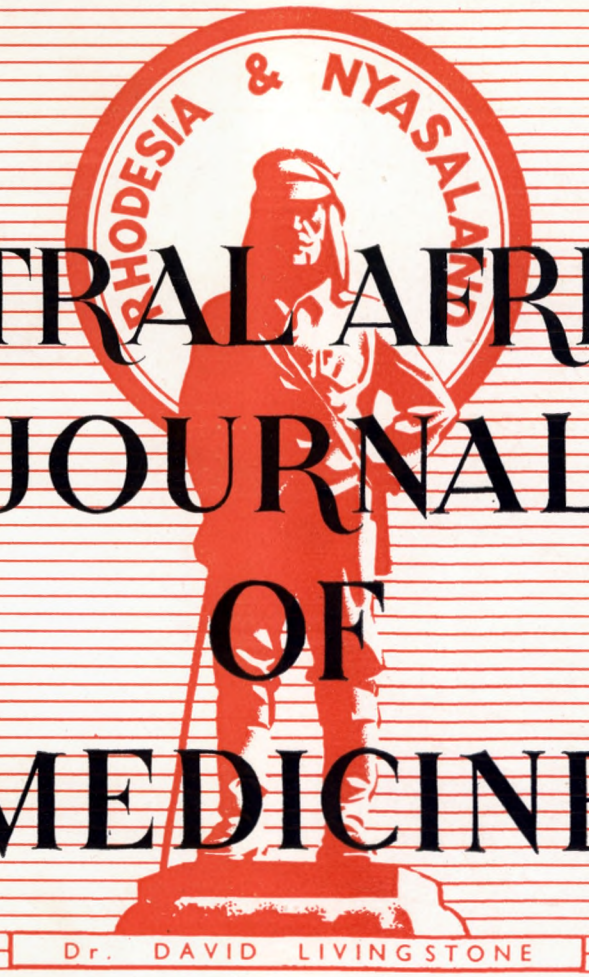

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Datura Poisoning

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It is important to remember that a considerable number of medicinal herbs are being prescribed in Rhodesia by witchdoctors. Consequently, although the witchdoctor is generally a fine botanist, from time to time mistakes can be expected to occur, such as when too much of a particular herb is given or a poisonous preparation administered in error. It is therefore necessary for us to be acquainted with the more common varieties of medicinal poisoning likely to occur in clinical practice. The present case followed the administration of datura leaf and as the clinical picture is of interest it was considered of sufficient importance to publish it.

Case History

The patient was an African male, aged about 20 years, who was brought to hospital at night in a state of mental confusion. His friends also wisely handed in a tin of green leaves that had been given to the patient by his medicine man. It transpired that he had consulted an African doctor because of urinary frequency for which he had been given the leaves of a datura plant.

On admission he was healthy in appearance but restless and disorientated. He thought it was day time and that the doctor examining him was at first a policeman, then a native commissioner and lastly even his employer, but definitely not a parson. He attempted to catch imaginary objects on the orderly's sleeves and searched his bed for fictitious articles. He was frequently found threading imaginary needles or industriously mending tears in the blankets. He was obviously not frightened by his delusions and was constantly smiling and laughing for no apparent reason. He often undressed and tried to wander round the ward naked.

On examination, there was no localised weakness and he was able to move his limbs freely although he staggered when he walked. The pupils were widely dilated and reacted sluggishly to light. The tendon reflexes were equal and brisk and the plantar responses flexor. Of interest was the presence of a large tumour extending from just above the symphysis pubis to just below the umbilicus. This was due to a full atonic bladder. A soft rubber catheter was passed without difficulty and it was not until 48 hours later that he was able to void urine normally. The skin and tongue were dry. The pulse was full and regular and its rate 120 per minute. His blood pressure was 128/70.

As the cause of the condition was not recognised at the time of his admission, symptomatic treatment was instituted. A gastric lavage was performed and 5 cc. paraldehyde administered subcutaneously because of the restlessness. After 12 hours he was much improved and he gradually recovered normal orientation within the next several hours. He could then recall what had happened, but his pupils remained dilated for several more hours.

Dr. Wild, the Senior Government Botanist, identified the leaves as belonging to the datura family, the active principles of which are atropine, hyoscyamine and hyoscine.

Discussion

The symptoms of datura poisoning are often severe. Two main forms of the condition are described, the maniacal and the comatose, it being believed that the former is more common when the seeds have been consumed and the latter more usual with the leaves. The most important single sign is the mydriasis, which may last several days. Maniacal symptoms and hallucinations are also characteristic of this form of poisoning.

An interesting feature—and one displayed in the present case—is the patient's eagerness to thread imaginary needles or to pick up the thread from his finger tips. Other important signs are dryness of the mouth and throat which may be the first complaints. Nausea and vomiting too are frequent with dimness of vision in a few cases.

All parts of the datura plant are poisonous including the leaves, roots and seeds, but the seeds are the most common cause of accidental poisoning. Stramonium poisoning in Africa usually results from the contamination of wheat or maize, so usually several or more victims become ill together. Beyers (1930) published an account of an epidemic by datura poisoning in the Union of South Africa, where the weed thrives best in rich, heavily nourished lands such as wheat lands.

When the ripened corn is carelessly reaped, the datura with its dried seeds is cut with the wheat which is then threshed and sent to the local miller. The meal then becomes intimately mixed and contaminated with the finely ground datura seeds.

In Kenya and Tanganyika hundreds of cases of stramonium poisoning were reported during 1943—all due to the consumption of mixed meal, a composite flour consisting of maize diluted with wheat, rye or cassava, in which the wheat or rye had become contaminated by the seeds of the common weed *Datura stramonium*, the common thornapple of English hedgerows. The cleaning of wheat before milling is a complicated process, and owing to the limited milling facilities in these East African territories, a quantity of the wheat had to be ground in mills lacking the machinery necessary for cleaning the grain. As far as we are aware poisoning from inadequate milling has not been recorded in Rhodesia where it would appear to be confined to the occasional case of accidental poisoning at the hands of the witchdoctor.

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